Exhibit KR-2

September 1, 2014

MARBLE MOUNTAIN RANCH
STANSHAW CREEK
WATER RIGHTS REPORT

Lennihan Law
A Professional Corporation

in collaboration with

Mid Klamath Watershed Council
and
Cascade Stream Solutions

Contents

I.

Report Background and Purpose

This report has been prepared by Lennihan Law, A Professional Corporation, pursuant to the request of the Mid Klamath Watershed Council (MKWC), in collaboration with MKWC and Cascade Stream Solutions (CSS.) The facts upon which it is based were provided by documents provided by interested parties; by MKWC and CSS[1]; the below-described State Water Resources Control Board (SWRCB) files provided by the SWRCB Division of Water Rights; and other sources cited in this report.[2]

The project purpose is described in the Stanshaw Creek Water Conservation Assessment, Project Abstract of the Grant Request Information to NFWF-Klamath River Coho Enhancement Fund 2012, prepared by the MKWC:

> "Stanshaw Creek has a short but significant section of coho habitat below the Hwy 96 crossing. A lateral scour pool is formed just upstream of the Stanshaw Creek mouth when Klamath flood flows are deflected by evulsed alluvium and streamflow from Stanshaw Creek. This pool is subsequently filled by cold Stanshaw Creek water when flooding subsides, creating a high quality summer and winter rearing habitat for non-natal juvenile coho salmon migrating down the Klamath River corridor. Growth rates for coho overwintering in this pool are high, leading to increased survival and numbers of returning spawners.
>
> Marble Mountain Ranch (MMR) currently diverts up to 3 cfs from Stanshaw Creek for domestic, irrigation and hydropower uses. Since 2002, landowners, agency, and tribal personnel have been working together to find solutions that provide for coho habitat needs without unduly impacting the MMR. All stakeholders concur that the interbasin transfer to Irving Creek must be remedied, either by returning water to Stanshaw Creek above the Highway 96 culvert, or directly to the Klamath River. Other options, such as physical modification of the intake, ditch, tailwater return, the hydropower system and consumptive uses of water and power, could likely reduce required diversion amounts and other potential impacts."

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[1] See, e.g., the CSS Marble Mountain Ranch Water Rights Investigation: Water Use Technical Memorandum (hereafter "CSS Technical Memo"). It as well as the other documents are available at https://drive.google.com/folderview?id=0B8qYwFeEzDsIQjNqc3BvU2h1Y2M&usp=sharing.

[2] Lennihan Law was not asked to and did not independently verify any of the facts or factual assumptions. In performing this water rights analysis, Lennihan Law relied upon the facts as represented to it. This report is prepared for MKWC only and for the purposes described in the MKWC-Lennihan Law Contract for Professional Services, Contract # 13-C-6, and for no other person, entity or purpose.

This report independently and neutrally evaluates the water rights for the Coles' diversions from and uses of water from Stanshaw Creek for the purpose of informing the stakeholders and the physical solution process[3] based on the information provided to us. This information does not contain as much quantitative information[4] as would be desirable and necessary to reach quantified conclusions. This is not unusual for a pre-1914 water right evaluation. Additional historic and quantitative information might further inform this analysis and our conclusions.

For reasons more fully set forth herein, this report concludes that the likely pre-1914 appropriative water right that can be exercised on the Coles' Marble Mountain Ranch is approximately 1.16 cfs, with varying seasons of use described below.

II.

Description of Marble Mountain Ranch Water Operations

A. Overview

There are a number of descriptions of the water operations on MMR in the documents. One such description is provided in an October 18, 2001 Forest Service memorandum regarding "Water Right Complaint Meeting Marble Mtn Ranch". It describes the Cole's diversion as follows:

> "The Cole's diversion is located 4,000 horizontal feet east of Highway 96 and over 400 vertical feet above the highway. The diversion (which is composed of river rocks arranged by hand) channels water into a ditch originally built by the Chinese in the late 1800s. The ditch contours from Stanshaw Creek over National Forest land for approximately 3000 feet then enters the Cole's property where some water is drawn off for drinking and the rest runs down a 500 foot long, 200 foot vertical 14" diameter steel penstock to a pelton wheel that produces hydroelectric power to run the ranch. The ditch can only carry 3 cfs maximum. Doug Cole said they need approximately close to 3 cfs to run the pelton wheel. This year the water was so low that he had to stop running the pelton wheel in April and it hasn't run since. He has a diesel generator located next to the pelton wheel that is used when the pelton wheel is not

[3] See, e.g., National Fish and Wildlife Foundation Klamath River Coho Enhancement Fund 2012, Full Proposal Grant Request Information for the Stanshaw Creek Water Conservation Assessment. Note that the report authors are neither the SWRCB nor a court, and the report purpose is as set forth above.

[4] While historically few diversions, particularly in rural areas such as this, were measured, measurement of diversions is now required. The SWRCB website providing information on these requirements can be accessed at http://www.waterboards.ca.gov/waterrights/water_issues/programs/diversion_use/.

running. The water after flowing past the pelton wheel is then directed into a ditch and channeled along the top and of the Cole's property in a southerly direction for approximately 1,800 feet where it leaves the Cole's property and enters upon National Forest land for 800 feet where it ends at a small natural streambed tributary to Irving Creek. This tributary enters Irving Creek 500 feet above Highway 96."

The Coles also have a small pond which is the subject of an SWRCB issued Small Domestic Registration D030945R. This is not within the scope of this report.

B. Ditch Capacity

The ditch capacity has been variously described as (non-exhaustive):

- The same from 1955- 1997 (1998 Statement of Lue Hayes, ¶9)
- 1.26 cubic feet per second ("cfs"), possibly based on a limiting section (Marvin Goss March 17, 1990 letter to Jeff Meith)

Ditch capacity and water right is approximately 2.503 cfs (Douglas Cole 12-08-05 E-Mail to SWRCB Division of Water Rights)

- Water right applications filed by the landowners with the State:
  - A29449: this application was for hydroelectric generation. It was filed in 1989 and cancelled in January 2013. It described the works' capacity as follows: earthen channel capacity 3.2cfs; turbine installed in 1940 (per 04/13/93 letter); maximum water to penstock = 2.5 cfs
  - A 29450: this application was for domestic and irrigation uses. It was filed by the Youngs, and later cancelled by the Coles. The SWRCB has not been able to make these files available to us.
- Statements of Water Diversion and Use (SWDU) filed by the landowners with the State:
  - 2.5 cfs per 1998 SWDU;
  - 3 cfs per 2010 SWDU;
  - 3 cfs per 2012 Supplemental SWDU

C. Volume of Use

The volume of water <u>use</u> at MMR has been variously described as (non-exhaustive):

- 0.49 cfs from "Descriptions of Surface Water Diversions in Klamath River Hydrographic Unit", Table 4, DWR bulletin94-6.
- The Cole's predecessors, the Youngs, filed water rights Application A029450 seeking rights for irrigation and domestic purposes in the cumulative amount of 0.11 cfs excluding losses (Mrowka 02-04-93 and Goldsmith 04-13-93 letters); the Youngs also applied for 3 cfs for hydroelectric generation (A029449).
- Cole 1998 SWDU NO. 15022: 354 AFY for irrigation, recreation and domestic purposes[5]
- Cole 2010 SWDU No. 016375: 635.3 AFY for power generation, domestic use, irrigation and stockwatering
- Cole 2012 Supplemental SWDU: 1963-2142 AFY

The volume of use claimed increased materially between 1998 and 2012. There is at least a partial explanation for this. The 1998 SWDU did not cover hydropower generation. It is possible that the hydropower generation was expected to be covered by the then pending application to appropriate. The subsequent 2010 and 2012 SWDU filings both include water for power generation. The volume of use claimed more than doubled between 2010 and 2012.

These differences may reflect hydrologic variations as well as variations in the claim of right, although for the most part the monthly amounts reported are static.

III.

Water Rights

A. Appropriative Rights to Surface Water

1. Appropriative Rights Overview

Appropriative rights are acquired by diverting water from a stream and applying it to beneficial use. Appropriative rights do not require use on land adjacent to the watercourse. They may authorize the use of water at locations distant from the watercourse, including outside of the watershed. (Crandall v. Woods (1857) 8 Cal. 136, 142; Miller v. Bay Cities Water Co. (1910) 157 Cal. 256, 280-281.) Appropriative water rights can be conveyed from one basin or watershed to another for use.[6] This is commonly done, as exemplified by the State Water Project and the Central Valley Project, among others.

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[5] This was filed by an engineer representing the Coles.

[6] This may be what is referenced as an "interbasin transfer" in the 2012 DFG FRGP. It is not truly a "transfer" in water right terms, and is allowed for appropriative water rights, as discussed above. Such conveyance of water for use outside of the originating watershed is not permitted for riparian rights.

Appropriative rights are typically – but not always -- junior in priority to riparian rights. The maxim "first in time, first in right," governs the priority of appropriative rights as between themselves. The priority of an appropriative right is based on the date when the development of the right was initiated. When the stream flow is not sufficient to satisfy all of the appropriative rights, senior appropriators are entitled to fully satisfy their rights before junior appropriators may divert water under their rights. (City of Pasadena v. City of Alhambra (1949) 33 Cal.2d 908, 926.) This type of water right authorizes the type and extent of diversion and use specified in the document (here, licenses), subject to other existing laws. Appropriative water rights must be continuously and beneficially used to maintain them. All or a portion of the right may be lost by non-use for more than five years, except where the non-use is due to unavailability of water or other allowed circumstance. Appropriative rights are perfected by applying water to reasonable and beneficial use; they must be developed and exercised with due diligence. (Maeris v. Bicknell (1857) 7 Cal. 261, 263; Wat. Code, §§ 1395, 1396, 1397; Cal. Code Regs., tit. 23, § 840.) In contrast to riparian rights, appropriative rights are subject to forfeiture in whole or in part if water is not used under the right for a five-year period.

Before December 19, 1914, an appropriative right could be obtained in two different ways: non-statutory and statutory. The non-statutory method entailed simply diverting water and applying it to beneficial use, after having made objective manifestation of the intent to appropriate the water. (See Nevada County & Sacramento Canal Co. v. Kidd (1869) 37 Cal. 282, 311-312.) The statutory method of obtaining a pre-1914 appropriative right entailed following the requirements of Civil Code sections 1410 through 1422, which were enacted in 1872. Civil Code section 1415 required the posting and recording of a notice that contained specified information about a proposed appropriation. Civil Code section 1416 required construction of the diversion works to be commenced within 60 days of posting the notice, and required the work to be conducted and completed with diligence. A statutory appropriator had seniority over any increases in use of water by a non-statutory appropriator. (Civil Code Section 1419.) This eliminated the right of relation-back of the priority date for increases in use relative to a statutory appropriation; it did not affect the relationship between two non-statutory appropriators. Haight v Costanich (1920) 184 Cal. 426, 433-434.)

Since December 19, 1914, obtaining a water right permit from the State Water Board (or its predecessor agency) pursuant to division 2 (commencing with section 1000) of the Water Code has been the exclusive means to acquire an appropriative water right. (Wat. Code, § 1225; People v. Shirokow (1980) 26 Cal.3d 301, 308-309.)

Both pre-1914 and post-1914 appropriative rights are perfected by applying water to reasonable and beneficial use. The right is quantified as the amount of water actually applied to reasonable, beneficial use, not the amount of water listed in a notice of appropriation, the capacity of an appropriator's diversion works, the amount of water actually diverted, or the amount of water authorized to be diverted in a water right permit. (Haight v. Costanich, supra,

at 431; Trimble v. Heller (1913) 23 Cal.App. 436, 443-444; Akin v. Spencer (1937) 21 Cal.App.2d 325, 328; Wat. Code, §§ 1240, 1390, 1610.)

Appropriative rights must be developed and exercised with due diligence. (Maeris v. Bicknell (1857) 7 Cal. 261, 263; Wat. Code, §§ 1395, 1396, 1397; Cal. Code Regs., tit. 23, § 840.) Under the doctrine of progressive use and development, the development of an appropriative right that was initiated before December 14, 1914, may be completed after that date without obtaining a water right permit, provided that any increase in the diversion and use of water after December 14, 1914, is within the scope of the original plan of development, and the plan is carried out with due diligence. (Haight v. Costanich, supra, 184 Cal. at pp. 431-433.)

The water right includes reasonable conveyance losses; one is required to have a water right, or rights, that cover the maximum amount and rate diverted from the source. What is a reasonable conveyance loss may vary with local custom and circumstance. Economics, impacts to other legal users of water (including fish), and other factors may be taken into account in determining what is reasonable.

Pre-1914 appropriative rights are subject to forfeiture in whole or in part if water is not used under the right for a five-year period. (Smith v. Hawkins (1898) 110 Cal. 122, 1127-128; Erickson v. Queen Valley Ranch Co. (1971) 22 Cal.App.3d 578, 582.) Multiple authorities on California water law articulate the beneficial use requirement to maintain appropriative water rights, with a five year non-use period required for forfeiture of those rights in whole or in part. This is reflected in, among other sources, Wells A. Hutchins, *The California Law of Water Rights*, pp. 291 et. seq., and cases cited therein.

Water Code Section 1240 and 1241 address the beneficial use requirement, and forfeiture, as follows:

> 1240. The appropriation must be for some useful or beneficial purpose, and when the appropriator or his successor in interest ceases to use it for such a purpose the right ceases.
>
> 1241. If the person entitled to the use of water fails to use beneficially all or any part of the water claimed by him or her, for which a right of use has vested, for the purpose for which it was appropriated or adjudicated, for a period of five years, that unused water may revert to the public and shall, if reverted, be regarded as unappropriated public water. That reversion shall occur upon a finding by the board following notice to the permittee, licensee, or person holding a livestock stockpond certificate or small domestic use, small irrigation use, or livestock stockpond use registration under this part and a public hearing if requested by the permittee, licensee, certificate holder, or registration holder.

An earlier version of Section 1241 provided a period of three instead of five years, and omitted the second sentence. It clearly applied to pre-1914 rights, and did not require a competing claim as a condition precedent for forfeiture. Instead, forfeited water became unappropriated public water. This, and numerous cases finding forfeiture without requiring a completing claim, are discussed in Hutchins, supra. In discussing the appropriate time period required for forfeiture, the Supreme Court in Smith v Hawkins (1895) 110 Cal. 122, 126-127, stated that "we hold that a continuous nonuser for five years will forfeit the right." See also Erickson, supra at 582.

In 2007, the Fifth District Court of Appeal required a competing claim (sometimes referred to as a clash of rights) to find forfeiture due to non-use of a pre-1914 appropriative right. North Kern Water Storage District v Kern Delta Water District (2007) 147 Cal. App. 4th 555. This is not the approach taken by the SWRCB. It has held that the law does not include the recommencement of use defense (In the Matter of Statement of Water Diversion and Use S015151 (2002) WR 2002-10; In the Matter of the threat of Unauthorized Diversion and Use of Water by Thomas Hill, Steven Gomes, and Millview County Water District (2011) WR 2011-0016.) The latter matter was litigated in Millview County Water District v State Water Resources Control Board, Mendocino County Superior Court Case No. SCUCVPT 1259715. In its opening brief to the Appellate Court in the Millview case, the SWRCB argued:

> …water that was at one time diverted to a beneficial use, but which has reverted to the public domain as a result of five years of consecutive non-use, in other words forfeited, is also unappropriated water subject to division 2 of the Water Code, and is subject to the Board's cease and desist authority as described in section 1831, subdivision (d)(1). (Wat. Code, §§ 1240, 1241; 1831, subd. (d)(1).)

Page 26. (See also page 10 of the brief, and Section 3.5 of SWRCB Order WR 2011-0016.)

Which approach will ultimately govern is not yet known. For purposes of this analysis, we have assumed that no competing claim is required in accordance with the SWRCB's position. If one were required, the instream public trust (in this case, fishery) needs could constitute such a claim. Such needs are part of the determination whether water is available for appropriation.[7]

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[7] Since this report was completed and before it was published, an opinion issued in Millview County Water District v State Water Resources Control Board, First District Court of Appeal, A139481 (September 11, 2014). The Court required a competing claim to find forfeiture, though it differed from the North Kern court in how this claim needed to be asserted. The Court remanded the matter to the SWRCB for further proceedings. Millview County Water District has requested a re-hearing. It is not yet known if the case will be appealed, or the outcome of further proceedings at the SWRCB. The effect of the opinion on the Marble Mountain Ranch claim of right has not been analyzed due to prior completion of the report after report completion and exhaustion of the budget, as well as the question whether this aspect of the opinion will stand or be altered.

While pre-1914 rights are not subject to the SWRCB permitting jurisdiction or "regulation" by the SWRCB (California Farm Bureau v SWRCB, 51 Cal.4th 421, 429 (2011)), the SWRCB does have the authority to review claims of such rights to determine their validity and extent. Young et al. v. State Water Resources Control Board et al., 219 Cal. App. 4th 397 (2013.) In the context of the administrative enforcement proceeding which gave rise to the above-referenced appellate opinion, the SWRCB addressed the standard for determination of the validity and extent of a pre-1914 water right, concluding as follows:

> "It is reasonable to draw the inference from Woods's lack of submittal of evidence for a valid water right that such a right does not exist. (See Wat. Code, § 1051 [granting the State Water Board investigatory powers over state's waters]; Phelps v. SWRCB, supra, 157 Cal.App.4th at p. 116 [noting that State Board had notified plaintiffs that the Board would likely require proof of the claimed riparian right as a reason not to estop the State Board from challenging the riparian right]; State Water Board Order WR 2006-0001, at pp. 19-20 [increasing administrative civil liability for water district because they did not provide information concerning a pre-1914 right during initial investigation, even though "as a matter of reasonable prudence, any claimant of pre-1914 water rights should have the documentation at hand to demonstrate that it has the rights it claims"].) …

The State Water Board recognizes that it can be difficult to obtain evidence roughly 100 years after-the-fact that specific pre-1914 appropriative rights were diligently perfected and subsequently maintained through continuous use.

In State Water Board Order WR 95-10 ("Cal-Am Order"), the State Water Board adopted the posture, for the purposes of that order, of evaluating evidence in the hearing record in the light most favorable to the party claiming a pre-1914 water right, Cal-Am. (Id. at p. 17.) In the Cal-Am proceeding, the State Water Board heard evidence regarding Cal-Am's diversions and public trust impacts from those diversions on the Carmel River, and contemplated enforcement action. Cal-Am submitted extensive documents, including deeds and notices of appropriation relating to Cal-Am's water rights. (Id. at p. 18.) Even looking at these in the light most favorable to Cal-Am, the State Board found these notices alone insufficient to determine that any of the claimed rights were actually developed and maintained by continuous use. (Id. at pp. 18-21.) Rather, the order looked to information submitted to the Railroad Commission in 1914 and to a 1915 engineering report as the "best evidence" to establish the amount of water actually developed under Cal-Am's pre-1914 water rights. (Id. at pp. 21-22.) Thus, even viewing evidence in the light most favorable to Cal-Am, and in the posture of considering enforcement action against Cal-Am, the State Water Board still carefully reviewed the available evidence, evaluated which evidence was most reliable, and did not make the broadest possible inferences regarding Cal-Am's submissions.

The State Water Board will take into account the difficulty of providing historical evidence in evaluating Woods's claims regarding development of a pre-1914 right. The State Water Board may require less evidence regarding such rights than it would for establishing rights perfected more recently, such as proof of use under a permit for the purposes of licensure. This is not to say, however, that the State Water Board will make every possible inference on behalf of Woods, or that mere hypotheses regarding what may have happened 100 years ago are sufficient.

Water Right Order 2011-0005, pp 29-30.[8]

We apply the foregoing standard for purposes of this report.

2. Appropriative Rights Associated with the Marble Mountain Ranch

The Coles claim a pre-1914 appropriative right to divert and use on Marble Mountain Ranch water from Stanshaw Creek. This claim is based upon the 1867 "Water Notice" by E. Stanshaw, claiming 600 inches of Stanshaw Creek flow for mining and irrigation. The notice was recorded several times, and may well have been preceded by appropriation of water under the non-statutory approach. The continuing validity of this claim for the current uses of Marble Mountain Ranch is discussed in more detail below.

B. Riparian Rights

1. Riparian Rights Generally

Generally, riparian rights authorize the diversion and use of water from a stream on land that is contiguous to the stream and located within the watershed of the stream. (Pleasant Valley Canal Co. v. Borror (1998) 61 Cal.App.4th 742, 774-775.) Riparian rights are limited to the natural flow of the stream, and do not authorize the diversion of "foreign water" that would not be present in the stream under natural conditions. (Bloss v. Rahilly (1940) 16 Cal.2d 70, 75-76.) In addition, water may not be stored from season to season under a riparian right. (City of Lodi v. East Bay Municipal Utility Dist. (1937) 7 Cal.2d 316, 335.) This is commonly referred to as "true" storage. Only temporary, or "regulatory" storage is allowed. Riparian users, who are not authorized to divert water to seasonal storage because of the right's correlative nature and link to the natural flow of a river, are permitted to regulate water in the short term. (See Seneca Consolidated Gold Mines Co v. Great Western Power Co. (1930) 209 Cal. 206, 215-216, 219.)

In most circumstances, a riparian right attaches only to the smallest parcel held under one title in the chain of title leading to the present owner. (Pleasant Valley Canal Co. v. Borror,

[8] The full text of this order can be found at:
http://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/orders/2011/wro2011_0005.pdf

supra, 61 Cal.App.4th at pp. 774-775.)[9] When a riparian parcel is subdivided, such that a parcel is no longer contiguous to the stream, the riparian right formerly attached to the noncontiguous parcel is lost, absent proof of intent to retain the riparian right. (Anaheim Union Water Co. v. Fuller (1907) 150 Cal. 327, 331.) Such intent can be demonstrated by the persistence of a water distribution system that continues to deliver riparian water to the otherwise severed parcel, statements in a conveyancing document, and other mechanisms. If a riparian right is lost by severance, it cannot be resurrected by merging the parcels under common ownership or into a single parcel. (*Ibid.*)

Riparian rights share in shortages of water on a correlative basis. When the natural flow of a stream is insufficient to satisfy all the riparian rights to use the waters of the stream, the riparian right holders must reduce their diversions proportionately. (Prather v. Hoberg (1994) 24 Cal.2d 549, 560.) Relative to an appropriative right, a riparian right has a priority date based on when the riparian parcel was patented. (Pleasant Valley Canal Co. v. Borror, *supra*, 61 Cal.App.4th at p. 774.)

Riparian rights are not lost through non-use. (In re Waters of Long Valley Creek Stream System (1979) 23 Cal.3d 339, 347, 358.) In other words, the water right holder may use the riparian right, and stop using it (or use a lesser amount) without losing or reducing the right itself. In one case, the SWRCB did subordinate the priority of unexercised riparian rights relative to otherwise junior water rights in the context of a stream adjudication (*Id*. at pp. 358-359.) This is a risk for unexercised riparian rights; it is not the normal circumstance.

Riparian rights can attach to water that is physically flowing on the surface, and to water that is subterranean, but legally classified as surface water.[10] The latter is sometimes referred to as "vertical riparianism."

California Water Code §5101 now requires each person or organization that uses diverted surface water under claim of riparian or pre-1914 appropriative right to file with the State Water Board a Statement of Water Diversion and Use prior to July 1 of the following year.

2. Potential Riparian Rights Associated with the MMR

CSS determined that no portion of the MMR is physically contiguous or adjacent to Stanshaw Creek. While it is theoretically possible that MMR could have preserved riparian rights to Stanshaw Creek in spite of having been physically severed from the creek (assuming

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[9] This is sometimes referred to as a "riparian chain of title". Because it must go back to the parcel creation (for example, by patent or rancho), it contains far more title information than the typical title report.

[10] Subterranean water that is sufficiently interconnected with surface water, such as the subflow of a river, can be legally classified as surface water under Water Code Section 1200. This is contrasted to "true", or "percolating" groundwater. Wells tapping the alluvium of a river, particularly shallow wells, may be extracting "surface" water.

that the property was originally contiguous with the creek), no evidence of such preservation was found in the materials provided (see requirement of proof of intent to retain riparian right discussed above). The land upon which the point of diversion is located is United States Forest Service land. Furthermore, the Coles do not claim any riparian right (see the three Statements of Water Diversion and Use.) For these reasons, we assume that no such right exists.

IV.

MMR's Pre-1914 Appropriative Rights Claim

The following discussion evaluates the questions raised regarding validity of the Marble Mountain Ranch pre-1914 appropriative water rights claim. It is based upon the information made available to us. This includes, without limitation, documents provided by the Coles and Cole's water counsel, Konrad Fisher, Mid Klamath Watershed Council, California Department of Fish and Wildlife; and the SWRCB Division of Water Rights files regarding the Coles' water rights application 29449[11]; the Klamath Forest Alliance complaint; and the two Statements of Water Diversion and Use and one supplemental statement filed by the Coles.

The document library is available until November 30, 2015, at:
https://drive.google.com/folderview?id=0B8qYwFeEzDsIQjNqc3BvU2h1Y2M&usp=sharing

A. Changes to Pre-1914 Appropriative Water Rights

1. Applicable Rules

Changes to pre-1914 appropriative water rights are governed by Water Code Section 1706, which provides:

> The person entitled to the use of water by virtue of an appropriation other than under the Water Commission Act or this code may change the point of diversion, place of use, or purpose of use if others are not injured by such change, and may extend the ditch, flume, pipe, or aqueduct by which the diversion is made to places beyond that where the first use was made.

Changes that would "initiate a new right" are not allowed, regardless of the presence or absence of injury. These include any increase in volume, season of use, or rate of diversion.

The right is measured based upon actual use, including reasonable losses. If a portion of a right is not exercised for a five or greater year period, when water is available for that use, that portion can be lost.

[11] Application 029450 was filed by the Youngs for domestic and irrigation uses. The SWRCB has not been able to locate the files on this application. There are a few documents from these files in files we were able to access.

A relatively recent SWRCB order, Order WR 2006-0001 *In the Matter of Draft Cease and Desist Order No. 262.31-18 and Administrative Civil Liability Complaint NO. 262.5-40 against the Lake Arrowhead Community Services District* ("Lake Arrowhead Order" or "Order"), addressed some of the issues that arise when pre-1914 appropriative rights are changed, including changes from consumptive to non-consumptive purposes.

The Lake Arrowhead Community Services District and its predecessors ("LACSD") used water in part for non-consumptive recreational purposes in Lake Arrowhead. Over time, they diverted increasing amounts for other purposes including consumptive municipal use. The SWRCB prosecution team argued that LACSD could not convert a non-consumptive use to a consumptive use without initiating a new right.

The Board did not adopt this approach. First, based upon a pre-1914 plan of development, and applying water duties and other assumptions, the Board recognized a pre-1914 appropriative right of 1566 acre-feet per year.[12] This established the scope of the right.

Second, the Board looked at the rules regarding changes to pre-1914 water rights. Section 39 of the Water Commission Act, which was repealed in 1925, previously allowed the conversion of other uses of water to domestic uses, without any injury test. Since 1925, Water Code Section 1706's 'no injury to other legal users of water' standard has applied. The primary injury identified in the Order is overdraft of Mojave Basin, to which Lake Arrowhead water is tributary. The change from non-consumptive lake storage to consumptive municipal use would exacerbate the overdraft condition. The Board stated:

> "In light of the time at which the court in the Mojave adjudication found that overdraft commenced in the Mojave basin, however, it appears that if the basis for consumptive use of water at Lake Arrowhead were a progressive change from non-consumptive uses to consumptive uses under section 1706, any change since the mid-1950's from non-consumptive to consumptive uses of water by LACSD would be prohibited under section 1706 because it would injure another legal user of water." (Page 10.)
>
> "The idea that changing a non-consumptive use to a consumptive use initiates a new right apparently reflects a common presumption that a change from a non-consumptive use to a consumptive use usually will cause injury to other legal users of water and consequently that a new water right is needed to effectuate the new use. (See, e.g. State Water Board Decision 1635, p. 91 (Oct. 2, 1996).) There are instances, however, where there is no injury. For example, if water that is not consumptively used is

[12] The Board relied in part upon the statutory preference for municipal use, and the municipal diligence standard which allows water to be developed over a long period of time. These doctrines, and the "plan of development" basis for a pre-1914 right, do not apply in the MMR Stanshaw Creek context.

permanently or seasonally removed from the natural watercourse, making it unavailable for other uses, a change to a consumptive use would cause no injury, since it already has been removed from the natural stream.[footnote omitted]" (Page 11.)

This order confirms that, other than changes from other purposes of use to domestic use until 1925, changes to a pre-1914 right are measured by the Section 1706 no injury rule. Further, it is possible that the change involved when water is legitimately removed from the stream system for a non-consumptive purpose, and then used consumptively, may be allowable provided that there is no increase in the volume of water removed from the stream system as a consequence of the change.

The application of these rules to MMR's diversions from Stanshaw Creek is discussed below.

2. Changes in Place of Use

Marble Mountain Ranch was originally a portion of the larger property patented to Stanshaw (see Patent 186169 and BLM 1985 Resurvey, Tract 48, Exhibits A and B to KMTG August 20, 2001 letter to SWRCB.) There have been a number of owners since, including McMurtry (1922); Hayes (1955 purchase-1970's (2000 Hayes Statement)); Youngs (1970's - 1994); and the Coles (1994- present). The original location where water was used (referred to as the "place of use") may have changed over time. For example, the 1867 Notice states in part that the "water so taken being carried first by ditch and flume to and past my dwelling house by ditch and flume running up the Klamath River to my upper field." There is also an assertion that the mining occurred on the Fisher property. MMR is located south of Stanshaw Creek, and is not adjacent to the creek. There are mine tailings at the mouth of Stanshaw Creek, and otherwise as described in theCSS Technical Memo. It is likely that the place of use changed as a result of any changes in the location of hydraulic mining, and when that mining ceased.

There is no evidence in the document library of injury as a result of any change in place of use. The injury identified presently is to the coho fishery in lower Stanshaw Creek, which results from diversions out of the creek and return flow to Irving Creek, the next large tributary downstream. This is addressed below.

A related question that has been raised is whether the Coles can claim the entire Stanshaw water right. According to current MMR owner Doug Cole, of the original canal lines, the only remaining operational line is the one that runs to MMR. (Doug Cole December 8, 2005 e-mail to Division of Water Rights staff.) No evidence of any other water user asserting rights under the Stanshaw Notice was found. The Coles do not claim the entire right, which was nominally 15 cfs according to the notice. They now claim a pre-1914 appropriative right to at

least 3 cfs (Statement of Water Diversion and Use No. 15022 dated November 28, 2012.)[13] Given that there is no evidence of any other user of the Stanshaw right, and the above-described rules regarding changes to pre-1914 appropriative rights, the Coles can claim the remaining pre-1914 right to the extent it was originally vested.

3. Changes in Purpose of Use

The changes identified in the documents can be segregated in to three categories.

Change #1. The first is the change from hydraulic mining and irrigation, and perhaps some domestic use, to irrigation and domestic uses. We do not have sufficient evidence to quantify the volumes used for these purposes as they changed during the early years.

It is likely that the irrigation and domestic uses persisted, and the mining ceased.

To the extent that hydraulic mining was replaced in whole or part by domestic use, both are year round. To the extent that mining was replaced by irrigation, there would be a reduction in season of use. Therefore, it is probable that there is no expansion of season of use. This would also be a shift from a non-consumptive use to a consumptive use. Section 39 of the Water Commission Act allowed the conversion of other uses to domestic use. It was repealed in 1925, and can be the basis for conversion of mining to domestic use up until 1925. After 1925, the Section 1706 "no injury" standard applied. There is no evidence in the documents provided to us of injury to other users from the change from hydraulic mining to domestic and irrigation uses.

Change # 2. There have been changes to the amount of irrigation, domestic and stockwatering uses over time. The irrigation use has varied over time.[14] In the 1950's, 30 acres were under irrigation (Hayes 2000 Statement) for hay, alfalfa, and gardens (Hayes 1998 Statement) When the Youngs were applying for a post-1914 appropriative water right for irrigation and domestic uses (Application A029450)[15], they accepted the Division of Water Rights staff recommendation of 0.09 cfs for irrigation based on 7 acres of alfalfa irrigation. This

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[13] As described in Section II.C above, the volume of the pre-1914 claim has increased materially based on the Supplemental Statements of Water Diversion and Use alone.

[14] General reference has been made to large diversions for flood irrigation with overflow being returned to the Klamath River. This may be true. As described below, we have specific irrigation acreages from the statements and other documentation that cover for more than 5 years' time; furthermore this seasonal use cannot be converted to year-round hydro-electric use, which is the use that has materially increased.

[15] Such an application would typically be filed to cover at least the same domestic and irrigation uses as covered by the pre-1914 appropriative rights claim (sometimes called an "over-filing".) Although there is no indication to the contrary, this is not necessarily true. The amount of 0.11 cfs accepted by the Youngs seems low. Cascades' estimates for the landowners before and after the Youngs range from 0.32 to 0.35 cfs. (CSS Technical Memo.)

is described in the Division of Water Rights February 4, 1993 letter to the Youngs and the April 13, 1993 Kronick, Moskovitz, Tiedemann and Girard (KMTG) response letter on behalf of the Youngs. Reasonable losses would have to be added to these amounts.

Current irrigation was reported by Doug Cole for 2009 as 25 acres of pasture, 60 fruit trees, and a 2 acre garden (2010 Statement of Water Diversion and Use No. S016375.)

Domestic use in 1955 was 16 homes. Between 1955 and the 1970's, RV sites and 10 additional cabins were added (Hayes 1998 Statement ¶11.) In 1993, the Youngs accepted the Division staff recommendation of 0.02 cfs for domestic use (see above-cited DWR and KMTG letters.) In a February 2007 letter to the Department of Fish and Game, Doug Cole stated that when the Coles bought MMR in 1994, there were 55 licensed RV hookups each running 30 amp circuits, outbuilding, home and cottage usage and agricultural uses. Now it is operated as a guest ranch with no RVs. The Coles' 2010 SWDU identified a resort serving about 50 people. In 2012 the Coles' attorney identified a target population of 30 people (Stoel Rives November 29, 2012 letter to the SWRCB.)

Stockwatering use in the mid 1950's was reported at up to 100 head of cattle at times. (Hayes 1998 Statement) Stockwatering is typically a very small volume of use. The Coles' 2010 SWDU identified 20-30 head of stock.

The cumulative total volume of water accepted by the Youngs in the correspondence regarding Application 029450 for domestic and irrigation use (apparently excluding losses) was 0.11 cfs (a total of 189.7 AFY per SWRCB E-WRIMS.) Carriage losses have been estimated between less than 0.5 and 1 cfs (See, for example, 04-13-93 KMTG letter to SWRCB on behalf of Youngs (losses are less than 0.5 cfs); 1998 C. Murray WRC Engineer memorandum to file (maximum 20% for loss of 0.5 cfs); Will Harling pers. comm. July 2013 (losses are up to approximately 1 cfs.))

With respect to the changes in domestic, irrigation and stock watering, it appears highly likely that the pre-1914 right provides for these purposes of use. There is some indication that the amounts may have increased from the Youngs' tenure to the Coles' tenure, although not by a significant amount (CSS Technical Memo.)

Change # 3. The third category of change involves the use of water for hydroelectric generation. There is debate regarding when hydroelectric generation was initiated. There are a few anecdotal reports that there was some generation during the early mining years, and subsequent school and domestic purposes. (See, e.g., August 20, 2001, KMTG letter to SWRCB on behalf of Coles.) The assertion that the age of one of the pelton wheels is determinative (id.) is not persuasive, given that the equipment manufacture date is necessarily before the use of the equipment in a given location, but not necessarily the date of that use. The 2001 KMTG letter also represents that Violet Anderson, who worked at the ranch during the McMurtry's

ownership[16], said that electricity was in use at that time in connection with a dairy. The source of water for any such hydroelectric generation is not identified. There is no mention of electricity or hydroelectric generation in Ms. Anderson's April 2001 written statement. There is a photo on the MMR website that is described as depicting aerial power lines on the ranch in 1916 (CSS Technical Memo and MMR website: http://www.marblemountainranch.com/ranch/ranch_history.html)

Owners of the MMR and others have multiple times asserted that the hydroelectric generation was initiated in the 1940's or later (see, for example, Doug Cole April 9, 2000 letter to Konrad Fisher; KMTG April 13, 1993 letter to Division of Water Rights; Lue Hayes 1998 Statement.) These may be considered binding on them. In his May 21, 1997 statement, Kenneth Harless, states that he lived on what is now MMR from 1947 to 1948, and that the water uses at that time were domestic and agricultural. Mr. Harless does not identify power generation as a use occurring at that time.

Consistent with standard applied to a pre-1914 water right claimant (see discussion at the end of Section III.A.1 above), a decision maker could reasonably conclude, as do we for purposes of this memorandum, that power generation was initiated before 1914.

Regardless of when hydropower generation was initiated, there is clear documentation of material increases in hydroelectric generation during the period from 1955 to 1965, as described below.

The original water right claim was for 15 cfs. We do not know how much water was used for hydraulic mining. The land area upon which mining could have occurred was much larger than the current area of MMR. During the late 1800's and early 1900's, the majority of the water used was probably for mining, with smaller amounts devoted to domestic and irrigation purposes. This pattern probably persisted from the 1860's to the time hydraulic mining activities ceased around the 1920's or 1930's. Hydraulic mining was not automatically prohibited by the Court in Woodruff v. North Bloomfield Gravel Mining Co., 18 F 753 (1884). In that case due to the injury inflicted on other properties, the Court issued a permanent injunction:

> "…restrain[ing] the defendants, being several mining companies, engaged in hydraulic mining on the western slope of the Sierra Nevada mountains, from discharging their mining debris into the affluents of the Yuba River, and into the river itself …"
>
> Id. at 756-757.

[16] The McMurtry's acquired the property in 1922 from Stanshaw.

The Court did not declare that use of water for hydraulic mining is illegal. The Court recognized that methods might be developed and implemented to prevent the kind of injury to other properties that was documented in the case presented to the Court, and left the door open for modification or suspension of the injunction (Id. at 808-809.) It is possible that this case could have served as precedent for enjoining other hydraulic mining activities, but we have no evidence that that occurred at the Stanshaw mining operation.

From the 1920's or 1930's until the mid-1950's, a period of twenty or thirty years, seasonal irrigation was the primary consumptive use with lesser amounts used for year round domestic purposes. According to CSS and the documentation provided, the volume of water used for irrigation and domestic use ranged up to 0.3 to 0.35 cfs (excluding losses.)

When the Hayes acquired the ranch in 1955, there was a 4 kW Pelton wheel in place. During the Hayes ownership, the power production capability (or rating) was increased first to 9kW and then in 1965 to a facility rated at 100 kW (Lue Hayes 2000 Statement.) In ¶ 5 of his 1998 Statement, prior MMR owner Mr. Hayes identifies domestic and agriculture as the water uses when they purchased the property. In ¶ 12, he goes on to state:

> "We also put in a pelton wheel generator that gave us electricity. Our first penstock was a 4" line and it barely gave us enough power to keep the lights and refrigerators on. Later we increased to a 14" pipe and a larger pelton wheel that is still in use today."

The installation of the first pelton wheel he references would have been after the Hayes' 1955 acquisition of the ranch. Mr. Hayes also described a significant amount of return flow from their diversion of most of the creek flow in summer and a portion of it in winter. (¶¶ 6 and 7, Hayes 1998 Statement.)

Lue Hayes also signed a letter dated April 30, 2000, regarding water use at the ranch (the Hayes 2000 Statement.) In it, he describes the sequence of events differently with respect to when the 4kW pelton wheel was installed:

> "The property had an existing 12" main waterline and 4 KW pelton wheel and 30 acres were under irrigation. After our purchase in 1955, we upgraded to a larger 9 KW pelton wheel to generate more needed electricity. … In 1965, a 100 KW pelton wheel was installed and water was still being used for irrigation."

Mr. Cole has replaced the "100 kW" Pelton Wheel described in Lue Hayes 2000 Statement to obtain higher efficiency. Mr. Cole estimates that 30-35 kW is produced when the volume diverted from Stanshaw Creek is approximately 3 cfs. CSS concluded that the power generation at the close of the Hayes' tenure was likely less than the current capacity, and the maximum power generation is now 38 kW or less. (CSS Technical Memo, pages C-8, C-9.)

Assuming no upgrades to efficiency of the infrastructure and power plant, increasing the peak production from 4 kW to 9 kW requires a 2.25 fold increase in water demand. An increase in peak power from 4 kW to 100 kW requires a 25 fold increase in flow. However, although Stanshaw Creek flow may have varied historically, it is not likely that the creek generally provided sufficient flow to generate 100 kW (estimated at 7.8 cfs). Regardless, the change in volume of flow needed to increase power generation from 4 to 9kW, and then an additional increase to the current generation rate of 30-38 kW, is significant. Approximately 0.29 cfs is needed to generate 4 kW; 0.66 cfs to produce 9 kW; 2.47 to produce 34 kW; 2.8 cfs to produce 38 kW, and 7.68 cfs to produce 100 kW (see CSS Technical Memo for an explanation of assumptions.) The likely increase in required water diversions for power generation during the Hayes' ownership, and from Hayes' ownership to current conditions (whenever 3+ cfs can be diverted), is approximately 2.5 cfs (2.8 cfs minus 0.29 cfs = 2.51 cfs). The amount of flow required to produce 38 kW is over 9 times the amount needed to produce 4 kW.[17]

The amount of flow that was and is now needed to be diverted in order to meet estimated domestic and irrigation demand is significantly less than that for power generation. While the demand for these purposes of use may have varied over time, we have several indicia of the range required, from 0.11 to 0.35 cfs (excluding losses) according to the CSS Technical Memo.[18]

In addition, under current conditions the water used for power generation is not re-used for irrigation or domestic purposes; the demands are separately met (CSS Technical Memo.)

The Arrowhead Order provides an argument that to the extent of diversions from Stanshaw Creek (diversions, as contrasted to use), there is no additional injury to Stanshaw Creek from increased use of the diverted water. This would apply to the extent of the historic diversion amount before hydroelectric generation was initiated and/or increased.

There are some representations that the full volume of the creek has been diverted in the past, particularly during lower flow/high demand periods such as summer (Hayes Statements.) This gives rise to an argument that the diversion amount has not been increased,

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[17] Cascade observes that power generation increased by as much as 9.5 times from 1955 to present (4 kW to 38kW.)(CSS Technical Memo.)

[18] There is general information regarding past housing of road construction crews and other domestic uses. We know that any such use ended by the 1950's based on the above-cited specific information regarding relatively small domestic uses from that time forward. If an argument were made that this earlier, potentially larger, domestic water use could have been converted into hydro-electric use, that would be accommodated by our conclusion regarding the Hayes' initial hydro-electric use, and the volume of such reduction in domestic use would have been small compared to the increase in water use for hydro-electric generation. The documentation of subsequent increases in hydro-electric use, with no correlating decrease in domestic use, is relatively clear.

and it establishes the extent of the water right. There are several issues with the sufficiency of this argument to conclude that the pre-1914 right encompasses the present day hydroelectric generation demand.

First, to the extent that the diversions exceeded the legitimate demand (use and reasonable losses), they would not be deemed reasonable under Article X, Section 2, and other provisions of water right law. If the volume of the gravity diversions from Stanshaw Creek continued when demands on the ranch did not warrant that volume, there would not be a legitimate water right basis for the additional amounts (or, put differently, the losses would be excessive.) This is exacerbated by the fact that the return flows are not tributary to Stanshaw Creek, but to Irving Creek. As reported by CSS, "[e]xcess diversion leaving the pond and flowing towards Irving Creek were measured on one occasion to be about 1 cfs." and "[w]ater is diverted continuously throughout the year at the maximum rate possible up to about 3 to 4 cfs. MMR will stop diverting on rare occasions when extreme flows are in Stanshaw Creek and diversion flows risk damaging the ditch. … Water that is diverted from Stanshaw Creek and is not consumptively used is discharged into Irving Creek." (CSS Tehcnical Memo, page C-4.)

Second, the documentation indicates that the increasing hydroelectric power generation increased the need to maximize diversions from Stanshaw Creek. The Hayes 1998 Statement describes this as follows:

> "We also put in a pelton wheel generator that gave us electricity. Our first penstock was a 4" line and it barely gave us enough power to keep the lights and refrigerators on. Later we increased to a 14" pipe and a larger pelton wheel that is still in use today. As my boys grew up we all worked that ditch at any hour of the night and in the middle of storms to keep it running. Jerry Hayes got so he could run up the hill to the ditch in about 5 minutes if we lost power. I could sleep with one eye open and watch the lights to know if the ditch was still running." (Hayes Statement ¶ 12.)

The Coles have expressed a similar need to keep the diversions high to generate power. At times of low flow in Stanshaw Creek, they are required to use a generator as a replacement source of power (W. Harling, Pers. Comm.; CSS Technical Memo.)

Third, the arguments in support of allowing the change conflict with the need to abate the injury to Stanshaw Creek fisheries. The documentation supports the conclusion that the hydroelectric generation creates the need to divert the maximum amount (now up to 3 cfs) as often as possible, to the extent of the available Stanshaw Creek flow. This would aggravate such injury. The Arrowhead Order identified when the injury initiated to define when changes to the pre-1914 right would no longer be allowed. In that case, the injury was overdraft in the Mojave groundwater basin. Here, injury would have been initiated when the coho habitat was compromised. One demarcation of that would be the date of listing of the coho. However, this

case is distinguishable from the Lake Arrowhead facts in that regardless of when the injury initiated, the exercise of a water right for any use in a manner that violates the federal ESA and certain other environmental laws is not generally allowed. This is discussed below.

Fourth, if the hydroelectric use did not initiate a new right, requiring a permit from the SWRCB, and it was instead a change from an earlier use (ie a prior use was reduced and that water used instead for power generation), there could have been a change in the season of use, as discussed below.

4. Changes in Season of Use

The Stanshaw Creek water diversion pattern raises a season of use consideration that did not arise in the Arrowhead case. The Stanshaw Creek pre-existing uses were domestic and agricultural, and possibly a lesser volume (up to approximately 0.3 cfs) of hydroelectric generation. Domestic use is year round; domestic use could be reduced and the purpose of use changed to hydropower.

Irrigation use is seasonal, so any reduction in irrigation use and conversion to hydropower generation would cause an increase in the season of use, which is not allowed without a permit. Another difficulty with the theory that present day hydropower use could be covered from a water rights standpoint by a change is the difference in volumes. Even if both irrigation and domestic uses were eliminated in favor of hydroelectric generation, the amount would fall far short of the amount needed for hydroelectric generation with the existing system.

The documentation shows some changes in domestic and irrigation over time, but they do not correlate with the initiation or increase in hydropower generation. It supports the evaluation of the initiation or increase in hydropower generation as an increase in water use, rather than as a change in purpose of use.

V.

Fishery Impacts

NOAA Fisheries (NMFS), the Department of Fish and Wildlife (DFW), and the Karuk Tribe, among others, assert that the diversions of water for MMR are adversely impacting coho salmon in violation of the federal ESA and other laws. For purposes of this report, we assume those assertions to be true.

Assuming that the injury to coho salmon, a listed species, is as claimed, there is exposure to enforcement actions under the Endangered Species Act and other laws. It also raises possible violations of the reasonable and beneficial use requirements of Article X section

2 of the California Constitution, various Water and Fish and Game Code sections, as well as the public trust doctrine. These provide potential separate and independent grounds to alter the MMR water operations.

A brief overview of the prominent laws that inform this analysis is provided below.

A. The Federal Endangered Species Act

The federal Endangered Species Act, 16 U.S.C. §1531 et seq. (1973) (ESA) is a program for the conservation of threatened and endangered plants and animals and their habitats. Coho salmon are listed as threatened species in northwestern California. (62 FR 24588) Critical habitat for the Southern Oregon/ Northern California Coast coho salmon was designated on May 5, 1999.

The ESA prohibits any action that causes a "taking" of listed species. "Take" is defined under the ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." (16 U.S.C. 1532(19).) "Take" may occur as the result of a variety of causes, including certain habitat modifications. According to 64 Federal Register 60727,

> "This final rule defines the term ''harm'' to include any act which actually kills or injures fish or wildlife, and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife.
>
> See also, Babbitt v. Sweet Home Chapter of Communities for a Great Oregon, 115 S. Ct. 2407, 2418 (1995.)

Regarding the role of water diversions in impacting listed species, the NOAA website states in part:

> "Salmonid species on the west coast of the United States have experienced dramatic declines in abundance during the past several decades as a result of human-induced and natural factors. …
> Water storage, withdrawal, conveyance, and diversions for agriculture, flood control, domestic, and hydropower purposes have greatly reduced or eliminated historically accessible habitat and/or resulted in direct entrainment mortality of juvenile salmonids. Modification of natural flow regimes have resulted in increased water temperatures, changes in fish community structures, depleted flows necessary for migration, spawning, rearing, flushing of sediments from spawning gravels, gravel recruitment and transport of large woody debris… ."
> http://www.nmfs.noaa.gov/pr/species/fish/salmon.htm

B. Article X, Section 2

Article X Section 2 of the California Constitution requires that all water uses and methods of diversion of water be reasonable and beneficial. "[T]he rule of reasonable use as enjoined by . . . the Constitution applies to all water rights enjoyed or asserted in this state, whether the same be grounded on the riparian right or the right, analogous to the riparian right, of the overlying land owner, or the percolating water right, or the appropriative right." Peabody v. City of Vallejo (1935) 2 Cal.2d 351, 383; see also SWRCB Decision 1644 *In the Matter of Fishery Resources and Water Right Issues of the Lower Yuba River* (2001.) This rule applies regardless of the priority of right. It has been used to require increased conservation, and to prohibit or modify diversions that adversely affect fish whether due to lack of sufficient remaining flow, lack of screening, or other impact.

C. Public Trust Doctrine

Under the public trust doctrine, certain resources are held to be the property of all citizens and subject to continuing supervision by the State. Originally limited to commerce, navigation and fisheries, over the years the courts have broadened the scope of the doctrine to include recreational and ecological values.

The California Supreme Court has held that California water law is an integration of both public trust and appropriative right systems, and that all appropriations may be subject to review if “changing circumstances” warrant their reconsideration and reallocation. The courts also have concurrent jurisdiction in this area. At the same time, it held that like other uses, public trust values are subject to the reasonable and beneficial use provisions of the California Constitution. National Audubon Society v Superior Court, 33 Cal.3d 419.

The public trust doctrine is frequently invoked in matters before the SWRCB, usually to protect instream flow for fisheries and other aquatic resources. The doctrine calls for a balancing of competing demands for limited resources, such as water.

D. Other Statutory Provisions (non-exhaustive)

Other statutory provisions protective of fish that may apply in this situation include Fish and Game Code provisions including the California Endangered Species Act at Fish and Game Code Section 2081 et seq; 14 CCR Sections 783-783.8; and the streambed alteration agreement law at Fish and Game Code section 1600 et seq.

VI.

Physical Solution Doctrine

One of the factors in a water rights analysis is whether the right is being exercised in a reasonable manner. Where the exercise is causing instream impacts, the analysis typically involves review of whether there are alternative methods to meet the off stream water demand that decrease or eliminate the instream impacts. This is reflected in the 'physical solution' doctrine of water law.

In its 1994 decision regarding Mono Lake, the SWRCB described the physical solution doctrine as follows:

> "In resolving disputes involving competing uses of water, California courts have frequently considered whether there is a "physical solution" available by which competing needs can best be served. (Peabody v Vallejo, 2 Cal.2d 383-384 [40 P.2d 486](195); City of Lodi v. East Bay Municipal Util. Dist., 7 Cal.2d 316 [60 P.2d 439 (1936).) Adoption of a physical solution is consistent with the constitutional goal of promoting maximum beneficial use of the State's water resources. The SWRCB has previously concluded that the physical solution doctrine can be employed to establish a flow regime for protection of fish in which the required releases of water from storage exceed the rate of inflow to a reservoir at a particular time. (SWRCB Order WR 90-16, pp. 8-9.)" (SWRCB D. 1631, p. 10.)

VII.

Conclusion

On balance, the documentation provided supports the conclusion that there is a viable pre-1914 appropriative water right that has and continues to be exercised on the Marble Mountain Ranch. However, there was a period from the 1920's or 30's until the 1950's when hydraulic mining had ceased, and hydropower generation was either non-existent or no more than 4kW (approximately 0.31 cfs.) It is clear that there was a material increase in hydropower generation during the Hayes' tenure, from 1955 to 1965. There is no indication that this resulted from a reduction in another year round use, such as domestic.[19] It appears to be an increase in water use beyond the amount of the right. Looking at the documentation in accordance with the burden on a pre-1914 water right claimant, the increase for power generation would be from approximately 0.31 cfs to 2.5 cfs (excluding losses, and assuming diversion of 3 cfs and losses of 0.5 cfs.) The pre-1914 appropriative water right supports

[19] Even assuming for argument's sake that there was a change (i.e. reduction in another use, likely irrigation), this would constitute an expansion of the season of use.

diversion and use of up to 0.35 cfs for domestic and irrigation, 0.31 cfs for power generation, plus reasonable losses in the range of 0.5 cfs, for a total water right of 1.16 cfs.

To the extent that hydro-power demand exceeds the pre-existing uses, particularly to the extent that it causes the need for greater diversions from Stanshaw Creek (whether increasing the diversion over the quantity of the right, or increasing the season of diversion under the right), then it is likely that a court or the SWRCB would find that this is not a permitted change, and initiates a new right requiring a permit from the SWRCB. Separately, the diversions which are not beneficially used, remove flow from Stanshaw Creek and return it to Irving Creek, do not have a legitimate basis.

Even the foregoing were not the case, the injury to instream fisheries could operate as a separate and independent basis for reduction of the diversions from Stanshaw Creek, re-direction of the return flow to Stanshaw Creek, or a combination thereof.

The MMR Stanshaw Creek context represents a good opportunity for application of the physical solution doctrine. The parties have already identified a number of potential physical solutions. Ideally, such a solution would reduce water demand for hydroelectric generation, addressing both the water rights and the coho fishery impacts while perpetuating the viability of the MMR operations. Increased efficiency, such as re-use of water used to generate power to meet irrigation and domestic demands, reduced losses, and return flow to Stanshaw rather than Irving Creek, are concepts which may prove useful.